

## 03040204-070

### *(Little Pee Dee River)*

#### General Description

Watershed 03040204-070 is located in Marion and Horry Counties and consists primarily of the **Little Pee Dee River** and its tributaries from the Lumber River to its confluence with the Pee Dee River. The watershed occupies 178,667 acres of the Upper and Lower Coastal Plain regions of South Carolina. The predominant soil types consist of an association of the Johnston-Meggett-Dorovan-Norfolk series. The erodibility of the soil (K) averages 0.20; the slope of the terrain averages 2%, with a range of 0-3%. Land use/land cover in the watershed includes: 34.7% forested land, 26.4% forested wetland (swamp), 17.2% scrub/shrub land, 15.4% agricultural land, 5.2% nonforested wetland (marsh), 0.6% urban land, and 0.5% water.

This section of the Little Pee Dee River accepts drainage from its upper reach, together with Brown Swamp (White Oak Creek, Fowler Branch), the Lake Swamp Watershed, Dawsey Swamp, Tredwell Swamp (Mill Swamp), The Falls, Back Swamp (Fox Bay), and Sandy Slough. Little Reedy Creek (Cane Bay, Mill Bay) merges with Reedy Creek (Big Sister Bay, Little Sister Bay, Reedy Creek Bay) in Smith Millpond and then flows through Leggett Millpond before draining into the Little Pee Dee River downstream of Sandy Slough. Further downstream, Cypress Creek enters the river, followed by Marsh Creek, Alligator Run, the Brunson Swamp Watershed, and Giles Bay.

Singleton Creek (Dwight Creek, Red Hill Branch, Alfred Creek, Bunker Hill Creek, Church Branch, Running Branch) drains into Brown Swamp as does Brown Bay, Knotty Branch, Cooper Branch, Davis Branch, Juniper Bay, Calhoun Branch, Todd Mill Branch, Lewis Mill Branch, and Alkinson Branch. Brown Swamp then flows through Jordan Lake and Old River Lake before entering the river. Hunting Swamp (Boyd Canal, Jenkins Swamp, Cedar Grove Branch, Cates Bay, Forney Branch, Brownway Branch, Big Cypress Swamp, Sarah Branch, Pawley Swamp) enters the system at the base of the watershed followed by Russ Creek (Jiles Creek, Russ Lake) near the Brittons Neck area. Several oxbow lakes drain into the Little Pee Dee River including Cox Lake, Gerald Lake, Newfound Lake, Gunter Lake, Johnson Big Lake, Cannon Lake, Jordan Lake, Old River Lake, Richard Lake, Sampson Lakes, and Dead River. There are several lakes and ponds (totaling 657.6 acres) in this watershed, and a total of 230.9 stream miles. All streams in the watershed are classified ORW with the following exceptions: Brown Swamp and White Oak Creek in the upper portion of the watershed, and another Brown Swamp further downstream are classified FW\* (dissolved oxygen not less than 4.0 mg/l and pH between 5.0 and 8.5) and their tributaries are classified FW; Hunting Swamp and its tributaries are classified FW.

#### Water Quality

<b>Station #</b>	<b>Type</b>	<b>Class</b>	<b>Description</b>
PD-037	S	FW*	WHITE OAK CREEK AT S-34-31
PD-042	P	ORW	LITTLE PEE DEE RIVER AT US 501, GALIVANT'S FERRY
PD-189	P	ORW	LITTLE PEE DEE RIVER AT US 378 12 MILES W. CONWAY

**White Oak Creek (PD-037)** - Aquatic life uses are partially supported due to dissolved oxygen excursions, compounded by a significant decreasing trend in dissolved oxygen and significant increasing trends in five-day biochemical oxygen demand, total phosphorus concentration, and turbidity. There is a significant decreasing trend in pH. This is a blackwater system, characterized by naturally low dissolved oxygen concentrations; however, the decreasing trend in dissolved oxygen suggests that conditions are deteriorating. Recreational uses are not supported due to fecal coliform bacteria excursions, compounded by a significant increasing trend in fecal coliform bacteria concentration.

**Little Pee Dee River** - There are three monitoring sites along this section of the Little Pee Dee River. This is a blackwater system, characterized by naturally low pH and dissolved oxygen concentrations. At the furthest upstream site (**PD-042**), aquatic life uses are not supported due to occurrences of copper in excess of the aquatic life acute standards. In addition, there was a significant increasing trend in turbidity, and a very high concentration of zinc measured in 1995. Although pH and dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and considered natural, not standards violations. Significant decreasing trends in total phosphorus and total nitrogen concentrations suggest improving conditions for these parameters. Recreational uses are fully supported.

Further downstream (**PD-189**), aquatic life uses are fully supported; however, there was a significant decreasing trend in dissolved oxygen, a significant increasing trend in turbidity, and a high concentration of chromium measured in 1995. The decreasing trend in dissolved oxygen suggests that conditions are deteriorating for this parameter. Although pH excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. There is a significant increasing trend in pH. Significant decreasing trends in five-day biochemical oxygen demand, total phosphorus concentration, and total nitrogen concentration suggest improving conditions for these parameters. Recreational uses are fully supported; however, there is a significant increasing trend in fecal coliform bacteria concentration.

At the furthest downstream site (**PD-350**), aquatic life uses are fully supported. Although pH and dissolved oxygen excursions occurred, they were typical of values seen in blackwater systems and were considered natural, not standards violations. Recreational uses are fully supported.

The Little Pee Dee River was treated with aquatic herbicides in 1989, 1990, 1992-1994, and 1997-1999 in order to control aquatic plants and provide access to the main river, tributaries, and lakes.

*A fish consumption advisory has been issued by the Department for mercury and includes the Little Pee Dee River within this watershed (see advisory p.115).*

## **NPDES Program**

### **Active NPDES Facilities**

**RECEIVING STREAM  
FACILITY NAME  
PERMITTED FLOW @ PIPE (MGD)  
COMMENT**

**NPDES#  
TYPE  
LIMITATION**

LITTLE PEE DEE RIVER TRIBUTARY  
LOCUST TREE DEVELOPMENT  
PIPE #: 001 FLOW: 0.0292  
WETLAND; WQL FOR DO,TRC,NH3N,BOD5

SC0035203  
MINOR DOMESTIC  
WATER QUALITY

WHITE OAK CREEK  
CITY OF MULLINS/WHITE OAK CK WWTP  
PIPE #: 001 FLOW: 2.75  
WQL FOR DO,TRC,NH3N,BOD5

SC0029408  
MAJOR DOMESTIC  
WATER QUALITY

CYPRESS CREEK  
B & M AQUACULTURE FARMS  
PIPE #: 001 FLOW: 2.50  
WQL FOR DO,TRC,NH3N,BOD5

SC0043281  
MINOR INDUSTRIAL  
WATER QUALITY

LITTLE REEDY CREEK  
APAC-CAROLINA/RAINES PLT  
PIPE #: 001 FLOW: M/R

SCG730025  
MINOR INDUSTRIAL  
WATER QUALITY

## **Nonpoint Source Management Program**

### **Land Disposal Activities**

#### **Landfill Facilities**

**LANDFILL NAME  
FACILITY TYPE**

**PERMIT #  
STATUS**

MARION COUNTY LANDFILL  
MUNICIPAL

DWP-068  
CLOSED

CITY OF MULLINS  
CONSTRUCTION

041101-1102 (341002-1201,  
ACTIVE DWP-912, DWP-047)

#### **Land Application Sites**

**LAND APPLICATION SYSTEM  
FACILITY NAME**

**ND#  
TYPE**

SPRAYFIELD  
TOWN OF CENTENARY

ND0069361  
DOMESTIC

### **Mining Activities**

**MINING COMPANY  
MINE NAME**

**PERMIT #  
MINERAL**

BAKER BROTHERS OF GRESHAM, INC.  
HARRELSON

0936-67  
SAND/CLAY

APAC-CAROLINA, INC.  
RAINS

0977-67  
SAND

CAROLINA SAND, INC.  
PEE DEE MINE

0707-67  
SAND

WEAVER CO., INC. CANNON SPRING MINE	0467-51 LIMESTONE
WEAVER CO., INC. JOHNSTON MINE	1077-51 SAND/CLAY
G & C, INC. G & C PIT	0222-51 LIMESTONE
CAVU, INC. BUCK MINE	1046-51 SAND
SUBMIT, INC. BRITTONS NECK NO.2	1146-67 SAND/CLAY

## **Water Supply**

Portions of this watershed fall within the Waccamaw Capacity Use Area and large groundwater uses must be reported (see Capacity Use Program p.23).

## **Growth Potential**

There is a low potential for growth in this watershed, which contains the Towns of Centenary and Rains, and a portion of the City of Mullins. The Town of Aynor is adjacent to the watershed. A portion of the U.S. Hwy. 501 corridor running from the City of Marion to the City of Conway crosses this watershed. Water infrastructure is located in and around the Town of Aynor, but only the U.S. Hwy. 501 corridor in the Town of Aynor is sewerred. There are plans to construct sewerage infrastructure along U.S. Hwy. 501 from Aynor to Conway. It is likely that additional residential, commercial, and industrial development will occur along this corridor in the future. Another highway corridor that may encourage commercial and industrial growth in the watershed is U.S. Hwy. 76 between the Cities of Marion and Mullins. This corridor has both water and sewer services and contains prime industrial properties. There is a relatively extensive rural water system serving the watershed, and an extension of this system into the Britton's Neck area is scheduled over the next several years. Sewer service is limited to the Mullins urban area and a small rural system in the Centenary area.